

D-11

STATE OF HAWAII  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Land Division  
Honolulu, Hawaii 96813

AAA

October 26, 2001

Board of Land and Natural Resources  
State of Hawaii  
Honolulu, Hawaii

Kauai

Direct Issuance of Lease to Agribusiness Development Corporation (ADC); Issuance of Revocable Permit to ADC for Irrigation Water Use and System Management; and, Grant of Immediate Right of Entry for Management Purposes, Kekaha, Waimea, Kauai, Tax Map Key: 1-2-02: various parcels

REQUEST:

Direct issuance of lease, revocable permit, and immediate management right-of-entry to Agribusiness Development Corporation (ADC), whose mailing address is 235 South Beretania Street, Suite 205, Honolulu, Hawaii 96813.

LEGAL REFERENCE:

Sections 171-95 and other applicable sections of Chapter 171, Hawaii Revised Statutes, as amended.

LOCATION:

Kekaha, Waimea, Kauai, identified by Tax Map Key: 1-2-02: various parcels, as shown on the attached map labeled Exhibit A.

AREA:

AA

Land Lease: 14,000+/- acres, more or less, subject to confirmation by the Department of Accounting and General Services, Survey Division.

Water Revocable Permit: Undetermined

ZONING:

State Land Use District: Agricultural  
County of Kauai CZO: Agriculture

TRUST LAND STATUS:

Section 5(b) lands of the Hawaii Admission Act

DHHL 30% entitlement lands pursuant to the Hawaii State Constitution: YES

*As Amended*  
APPROVED BY THE BOARD OF  
LAND AND NATURAL RESOURCES  
AT ITS MEETING HELD ON  
*October 26, 2001. per*

ITEM D-11

CURRENT USE STATUS:

Approximately 4,915 acres of cultivated State land (out of an approximate total of 7000 acres of arable State land) encumbered by revocable permits to CEATECH (aquaculture-115ac), Syngenta Seeds (corn-300ac), Pioneer Hi-Bred Intl (corn-500ac), Wally Johnson (diversified ag-700ac), and Gay & Robinson (sugar-3300ac) acreages are approximate.

LEASE TERMS AND CONDITIONS:

## CHARACTER OF USE:

Land Lease: Agricultural, aquacultural, grazing, and other uses as may be allowed under County Agriculture zoning and other land management purposes including natural resource management, rock quarrying and kiawe tree removal.

Water Revocable Permit: Irrigation water system management, development, maintenance, operation and repair.

## LEASE TERM:

Land Lease: Fifty-five (55) years

Irrigation Water System: Month-to-Month Revocable Permit.

COMMENCEMENT DATE: September 1, 2001

ANNUAL RENT: The annual rent paid by ADC to DLNR under the lease will be equal to the total annual sublease rents collected by ADC from subleases of the property, less operating expenses paid by ADC in connection with their management of the property. Deductible operating expenses shall include expenses incurred for maintaining the infrastructure located on the property, including the interior roadways and irrigation system, and a management fee allowance equal to ten percent (10%) of the total sublease rents collected by ADC. The difference shall be defined as "net rent payments" due DLNR. Payments to DLNR shall begin accruing effective September 1, 2001.

METHOD OF PAYMENT:

Annual payments, in arrears, due 30 days after the end of each calendar year.

The first initial net rent payment shall cover the period September 1, 2001 through December 31, 2002 and shall be remitted with the annual financial report due 30 days after the end of the calendar year.

Thereafter, annual rent payment shall cover the twelve (12) months of the previous year.

ANNUAL FINANCIAL  
REPORTS:

X

ADC shall submit, together with each rental payment, a detailed financial report which itemizes the sublease rents collected and operating expenses deducted for the rental period. Such report shall be filed with the Chairperson of the Board of Land and Natural Resources within thirty (30) days after the end of each calendar year.

PERFORMANCE BOND:

Waived on the basis that ADC is a State agency

SUBLEASE APPROVAL:

Delegate to the Chairperson the authority to approve subleases made under this lease.

MUTUAL CANCELLATION  
OF LEASE:

The parties may mutually agree to cancel this lease prior to the scheduled termination date. In the event this lease is cancelled prior to the scheduled termination date, DLNR shall assume the position of the sublessor for any sublease under this lease.

PARTIAL WITHDRAWAL  
OF LAND FROM OR  
TERMINATION OF THE  
MASTER LEASE:

The parties may mutually agree to withdraw a portion of the property from this lease. If the withdrawn property is subject to a sublease, DLNR shall assume the position of the sublessor for any sublease under the sublease.

CHAPTER 343 - ENVIRONMENTAL ASSESSMENT:

In accordance with the Land Division, Land Management Branch's Environmental Impact Statement Exemption List, approved by the Board on September 12, 1997 under agenda Item D-10, this request qualifies under exempt Class of Action (1) (2)-use of State land that previously existed with no interruption or change in use.

REMARKS:**History and Background:**

On February 28, 2001, AMFAC closed Kekaha Sugar Company, ending nearly 100 years of sugar cultivation on some 28,000 acres of State and Hawaiian Homes land at West Kauai. In anticipation of the closing, the Land Board issued five (5) revocable permits which took effect on March 1, 2001, the day after plantation operations ceased.

The five revocable permits placed most of the cultivated acreage (totaling about 8000 acres) under the care of Syngenta Seeds and Pioneer Hi-Bred International (seed corn), Wally Johnson (diversified farming), CEATECH (aquaculture) and Gay & Robinson (sugar). Permit rent for the first six (6) months ending on August 31, 2001, was waived to allow the users an opportunity to move onto the property, form a cooperative, and undertake the critical maintenance of important infrastructure.

This plan has essentially been successful to the end that the five permittees are jointly paying about \$14,000.00 in monthly maintenance fees (this amount fluctuates depending upon the cost of power, emergency repairs, etc) to keep the important infrastructure operating (power, water, roads, security, etc). The maintenance contract has been issued through ADC to CEATECH. All five land permittees were to jointly hold another revocable permit covering the Kokee and Kekaha ditch irrigation systems. Four of the five permittees have signed the document, Gay & Robinson has not, as of this time. Rent for the combined water permit was set by the Board at \$13.00 per month.

When the land permits were originally issued, it was the intention of the permittees to quickly form a cooperative which would then apply for a direct lease covering all 28,000 acres. The coop was to then sub-lease to users and manage the water system supported by funds provided by members of the coop.

The idea of the coop applying for the master lease has since been set aside in favor of the idea that ADC should acquire the lease. Consequently on April 18, 2001, ADC did file an application for a 30 year lease for the 28,000 +/- acres. Meanwhile, prompted by its own program needs, DHHL decided that it cannot commit its 14,000 +/- acres to a long term DLNR issued lease. Their preference is to manage their own property. Resulting from this decision are discussions between DHHL, ADC and Gay & Robinson for the DHHL owned cane land (about 800 acres) and with Forestry and Wildlife (DOFAW) for continued use of the Kekaha Game Management Area which comprises all or most of the remaining DHHL acreage.

What follows is a summary of the status of the property and a suggested direction in which we propose to proceed.

**Current Status of Land:**

State Ownership: 14,000+/- acres comprised primarily of TMK 1-2-02:1 plus numerous small tax key parcels within Parcel 1. State ownership includes the majority of the Mana Plain and approximately 1500+/- upland acres. Approximately 7,000 acres of the State lands are cultivated.

**Irrigation system:**

Consists of two parts: 1) KOKEE DITCH SYSTEM includes 21 miles of ditch and three reservoirs - Puu Lua - storage capacity 262 million gallons, Kitano - storage capacity 36 million gallons and Puu Opae - storage capacity 88 million gallons. Puu Opae Reservoir is on DHHL land while Puu Lua and Kitano reservoirs are on State Land. Average flow in the Kokee ditch over the past 12 years is approximately 13 mgd. 2) KEKAHA DITCH SYSTEM consists of 27 miles of ditches and connecting reservoirs. Average flow in the Kekaha ditch over the past 12 years is 35 mgd. (see Attachment B for more detail on water system).

**Suggested Direction For Disposition Of State Land And Water System**

Land Disposition: Proceed with disposition of a 55 year lease for 14,000+ acres of State land to the Agribusiness Development Corporation ("ADC"). The existing five (5) land revocable permits to remain in effect and be transferred to ADC until the long term lease is issued to ADC. - ?

Disposition Covering the Irrigation Water Systems: Authorize the immediate issuance of a revocable permit covering the irrigation water systems and the use of water to ADC. Upon issuance of the revocable permit to ADC, cancel the existing water revocable permit.

Rent for the water revocable permit should commence effective September 1, 2001. The permit rent would be determined by either staff or independent appraisal. Installation of measuring and/or metering devices at logical points within the irrigation system, to measure the amount of irrigation water used by ADC, would be the responsibility of ADC in consultation with the DLNR, Commission on Water Resource Management branch.

The terms of the water permit will include language requiring the permittee to continue to provide irrigation water for area landowners/users who have historically depended upon the Kekaha system. These include the Waimea Valley farmers, Kikiaola Land Company, the Knudsen family lands, Waimea Dairy, Pioneer and Syngenta Seeds and the DHHL agricultural lands including their pastoral homesteads.



GENERAL COMMENTS:

The State lands at Kekaha were at one time rated to be among the highest yielding sugar cane acreage in the world. Good soil, abundant sunshine and a working irrigation water collection and distribution system make this property the most valuable agricultural asset in the State inventory. As an added bonus, Kekaha is rated as one of the most desirable locations in the State for aquaculture. Kekaha, very much like other examples throughout the State where plantation closings have left extensive acreage unused or under utilized, is in a somewhat difficult period of transition. The plantation was everything for everybody for nearly 100 years.

Effective February 28, 2001, the plantation closed and we are struggling with many of the issues other large landowners have had to deal with as they sought a transition strategy from plantation style agriculture. In this case, we are not on the outside looking in. All of the land comprising Kekaha Sugar Plantation (with the exception of mill and office site plus scattered kuleana parcels) and the even larger area encompassing the water system are located on State or Hawaiian Homes land. We therefore have a direct stake in the future of the Kekaha lands.

Fortunately, we have quality tenants supported by ADC who are committed to preserving agriculture and the irreplaceable infrastructure for the long term. These tenants have demonstrated a willingness to think and to act outside the box and have been the driving force behind keeping the land and infrastructure from falling into disrepair. We are confident that agricultural use can and will be sustained at Kekaha providing we successfully work through this transition period. In addition to the five permittees already in place there are other knowledgeable and funded agricultural businesses on the verge of applying for acreage. On top of that there are some exciting new crop experiments already underway on the island that could potentially benefit the Kekaha lands and provide employment to displaced sugar workers.

The staff, the users on the land and ADC espouse the philosophy that this valuable agricultural resource is worth preserving and sustaining. In order to facilitate its role as manager of the property, ADC has asked for Board consideration in several areas of the lease and revocable permit terms and conditions.

As an example, the assistance of the Board is requested to allow ADC the opportunity to determine what sublease rents should be for each of the tenants. The amount of rent paid to the DLNR would be calculated by subtracting from the total of the sublease rent (or gross rent) expenses related to maintaining necessary infrastructure including maintenance to the irrigation systems, plus a 10% management fee retained by ADC. The difference, or net rent, would be paid to DLNR as lease rent. September 1, 2001 is the date that rent payments to DLNR will start. Effectively, at least in the beginning, rent would probably have to be paid retroactively, while ADC sets there system up. Within thirty (30) days after the end of each calender

year, ADC will file with the Chairperson a detailed financial report explaining how the DLNR's net rent share was calculated.

Recognizing ADC to be a State agency established to ease the transition in use of large tracts of land from plantation style agriculture to smaller farms, speaks to the recommendation that is intended to make the process of ADC issuing subleases to farmers as efficient as possible. In order that this be accomplished, the Board is being asked to delegate the authority to consent to subleases between ADC and tenants, to the Chairperson.

Finally, it is possible in the future that ADC may want to withdraw from an active management role on a piecemeal basis or in the entirety as sublessees establish themselves as viable entities on the land. The ideal situation at some point in the future would be that all of the sublessees become established and a mechanism to properly fund and care for operation and maintenance of important infrastructure is in place. At that point, ADC would like the opportunity to request piecemeal withdrawals of land covered by individual successful subleases by being allowed to withdraw such lands from their master lease. The properties would then be managed by DLNR who would be bound to continue the in-force sublease for the life of the sublease. At such time as all of the sublessees are determined successful, ADC could invoke the mutual cancellation privilege and request cancellation of the lease. Again, return of the land to DLNR control would be with the understanding that in-force subleases would be honored.

While there was no change or break in use of the property (Kekaha Sugar closed on February 28, 2001, and the five land permits started on March 1, 2001), copies of ADC's application was sent to the following for comment. DOH offered a "no comment to make response". NRCS had no objections to the application with a footnote offering assistance to operators with developing conservation plans. DHHL did not respond. DOA did not respond. OHA did not respond. Additional referrals to DLNR divisions including Aquatic Resources, DOFAW, Historic Preservation, State Parks and CWRM, elicited the following responses.

AGENCY COMMENTS:

Opportunities to provide comments on this proposal were provided to Department of Health, Department of Hawaiian Home Lands, Department of Agriculture, Office of Hawaiian Affairs, Natural Resource Conservation Service, DLNR Divisions of Forestry & Wildlife, State Parks, Water Resource Management, Aquatic Resources, and Historic Preservation Division. The following comments have been received:

1. DLNR - Water resource Management. (dated 8/17/01):

- \* We recommend coordination with the Land Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.
- \* We are concerned about the potential for ground or surface water degradation/contamination and recommend that approvals

for this project be conditioned upon a review by the State Department of Health and the developers acceptance of any resulting requirements related to water quality.

If the proposed project includes construction of a stream diversion, the project may require a stream diversion works permit and amend the in-stream flow standard for the affected stream(s).

- \* If the proposed project alters the bed and banks of a stream channel, the project may require a stream channel alteration permit.
- \* There are numerous unused and abandoned wells on these lands that should be properly sealed in accordance with Administrative Rule 13-168-16 and the Hawaii Well Construction & Pump Installations Standards (1197). Applications must be made and well construction permits obtained prior to the start of any sealing work.

Staff Comments: Conformance to CWRM rules and regulations will be a standard condition of the lease. Resolution of the uncapped wells issue is a responsibility of the previous lessee (Kekaha Sugar Co./AMFAC) and where negotiations are still in process.

2. DLNR - Division of State Parks. (dated 7/20/2001):

There are numerous state parks related issues and concerns regarding the subject matter that should be addressed and hopefully resolved prior to the issuance of a long term lease. These issues and concerns are as follows:

A. **Kokee Ditch Systems**

- The historical significance of the Kokee Ditch and associated features (eg., ditch man's cabin at Puu Lua Reservoir) need to be addressed.
- A steady water supply from Kokee Ditch is needed for the restrooms at Waimea Canyon lookout.
- If the Puu Lua ditch man's cabin is no longer essential for the operation and maintenance of the ditch system, then the land and improvements should revert to our control and management.
- An agreement or conditions for the transiting and staging on park lands for operation and maintenance of the ditch system need to be worked out.
- The lease or permit should incorporate conditions to protect the park resources and park visitors.

B. **Polihale Access Road**

- Roles and responsibilities for the repair and maintenance of the access road need to be addressed and resolved.
- The access road running behind the sand dunes need to be relocated for safety.

C. **Polihale Flood Diversion**

- Consideration should be given to slow down the flood water flow in the irrigation ditch which redirected floodwaters



from portions of Mana Plain thru the park causing washout of the crossing and sedimentation.

**D. Polihale State Park Expansion**

- A few acres are needed for additional parking space.
- The back dunes and the crossing should be added to the park.
- The well site, waterline route, and access road to these facilities need to be incorporated into the park by an easement of EO.
- The archaeological and cultural sites along the talus slope at the base of the ancient sea cliffs are of high park value and should be considered for addition to the park.

**E. Waimea Canyon State Park Expansion**

- The lands along Waimea Canyon Drive should be considered for addition to Waimea Canyon State Park for its scenic drive and scenic viewpoints.
- The electric power line (40' wide) and the Ditch right of way (10' wide), which are excluded from the southern half of Waimea Canyon Park, should be considered for addition to Waimea Canyon State Park for more effective park management.

Staff comments: As to the recommendations for additional lands to the park, at such time State Parks is prepared for the necessary subdivisions requiring survey maps and descriptions, and subsequent withdrawals and set asides, such requests can then be considered. As to the Polihale access road, relocation of it should be a Parks responsibility and not a lessee requirement. Parks should prepare the necessary realignment maps to undertake this proposal also. Too, maintenance of this road should be a State Parks requirement as the majority of users are Park users, not the lessees. So that the public access road maintenance issue is properly dealt with ADC and the Division of State Parks should consider transacting a memorandum of understanding.

**3. DLNR- Division of Aquatic Resources. (dated 7/24/2001):**

Include language in the lease similar to those conditions included with the East Kauai Water User's Cooperative permit for Wailua Reservoir. Those conditions are as follows:

- \* That the State reserves unto itself the rights to all fish and wildlife resources within the Kokee Public Fishing Area.
- \* That the State has the right to develop and manage the Kokee Public Fishing Area, and lands immediately adjacent to it, as such. This may include improvements and amenities.
- \* That the State, in exercising its management responsibilities, may do so through the use of concessionaire(s).
- \* That ADC will not restrict the access of State personnel or their agents while conducting management activities, nor the public, when legally enjoying a State sanctioned program, such as public fishing.

- \* ADC will notify the State at least two weeks in advance when land or vegetation alteration may affect aquatic habitat in or immediately around the reservoir.
- \* ADC will notify the State at least two weeks in advance of any action that would lower the water level of the reservoir below 30 feet.
- \* Should irresolvable issues arise, the following process will be employed to attempt to arrive at a mutually beneficial solution:
  1. Issues pertaining to flora and fauna will be taken up using the Kauai Aquatic Life and Wildlife Committee as a forum.
  2. Issues pertaining to the use of water resource will be taken up using ADC as a forum. In the resolution the parties agree to work towards consensus-based rather than majority based solutions.

Staff Comments: So Noted. If additional clarifications are necessary memorandums of understanding could be enacted between ADC, DOFAW and Aquatic Resources.

4. Natural Resource Conservation Service. (dated 6/12/2001):  
We are available as needed to work with operators to develop Conservation Plans.
5. Department of Health. (dated 6/13/01): No comments
6. DLNR, Historic Preservation Division. (dated 7/30/01):  
No completed archaeological inventory surveys have been conducted on these parcels. We have two known historic sites located in the area. We expect to find historic sites in the area (valleys, ridges, base of ridges, and gulch lands) such as heiau, house sites, agricultural complexes which would include auwai and terraces and plantation sites, i.e ditch systems, tunnel systems, plantation camps, and bridges. The areas might still have significant historic sites. We will not know this unless a systematic archaeological inventory survey is conducted. We have little concerns that pasture/ranch activities will damage historic sites unless land clearing or land alteration activities take place. Our concern would mainly be with the use the gulches and wastelands for cultivation purposes. If the applicant is using the former cane lands then this would be no problem and no historic sites would be affected. Ideally these areas could be fenced off until the applicant has a proposal.

If the following recommendations are attached to the permit, then we believe that the proposed work will have "no adverse effect" on significant historic sites:

- a. If land clearing or land alteration takes place in the gulches or wastelands (gullies, valleys, ridges and mountains). The Historic Preservation Division (742-7033) should be contacted by the applicant. A field check will need to be done by our staff archaeologist prior to the land clearing activities. Ideally hand clearing in these areas

would be preferred. If the alteration activity is on a large scale or significant historic sites are found, then the applicant would need to have an archaeologist inventory survey shall be conducted by a qualified archaeologist prior to construction or land clearing activities. A report documenting the archaeological work shall be submitted to the State Historic Preservation Division for review and approval. The report shall include: 1) Detail drawings of burials and deposits to scale. 2) All artifacts shall be sketched and photographed. 3) Analyses if all perishable and datable remains shall be conducted. 4) Stratigraphic profiles shall be drawn and made to scale. 5) All locations of historic sites shall be on an overall map of the project area. 6) Initial significance evaluations shall be included for each historic site found, and 7) Documentation on the nature and age of the historic sites shall be done. If significant historic sites are found then proposed mitigation or preservation plans can be submitted for review and approval.

- b. If burials are discovered, a burial treatment plan shall be prepared for burial discoveries encountered during the project. In addition, consultation with the appropriate ethnic groups, the procedures outlined in Chapter 6E-43 shall be followed. It is necessary for the treatment plan to be prepared after consultation with native Hawaiians, such as the Kauai Island Burial Council and the Office of Hawaiian Affairs.

RECOMMENDATION: That the Board:

1. Find that, after considering the potential effects of the proposed dispositions as provided by Chapter 343, HRS, and Chapter 11-200, HAR, these dispositions will probably have minimal or no significant effect on the environment and are therefore exempt from the preparation of an environmental assessment.
2. Authorize the issuance of a direct lease to the Agribusiness Development Corporation ("ADC") covering the subject area for agricultural, aquacultural, grazing, and other uses as may be allowed under County "Agriculture" zoning and other land management purposes including natural resource management, rock quarrying and kiawe tree removal, under the terms and conditions cited above, which are by this reference incorporated herein and further subject to the following:
  - a. The standard terms and conditions of the most current direct governmental agency general lease form, as may be amended from time to time;
  - b. Review and approval by the Department of the Attorney General; and

- c. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.
- d. The State reserves all hunting rights. In the event the State should declare the whole or any portion of the premises as a public shooting grounds, the State reserves the right and privilege to issue written permits to hunters, subject to rules and regulations issued by the Department of Land and Natural Resources, provided, however, that open season shall be coordinated with the activities of the Permittee on the premises.
- e. That the standard Level One Hazardous Materials condition shall be reworded as follows: "At any time during the term or upon termination of this permit, the Chairperson, for good cause, may require the Lessee to conduct at Lessee's own expense, a Level One (1) Hazardous Waste Evaluation and a complete abatement and disposal, if necessary, satisfactory to standards required by the Federal Environmental Protection Agency, the Department of Health, and the Department of Land and natural Resources. Termination of this permit will not be approved by the Board of Land and Natural Resources unless this evaluation and abatement provision has been executed where required."
- f. Upon issuance of the direct lease to ADC, the prior five (5) revocable permits shall be terminated.
- g. *HP on pg 10, 11 + Ditchman Cabin*
3. Authorize the issuance of a revocable permit to ADC covering the subject area for irrigation water system management, development, maintenance, operation and repair, under the terms and conditions cited above, which are by this reference incorporated herein and further subject to the following:
- a. The standard terms and conditions of the most current revocable permit form, as may be amended from time to time;
- b. Review and approval by the Department of the Attorney General; and
- c. The permittee shall continue to supply irrigation water to landowners/users who have historically used water from the Kekaha ditch.
- d. Compliance with applicable terms, covenants, conditions and agreements contained in expired General Lease No. S-4222 as it relates to the water system and/or the use of water.

*W. Amend to Dofer  
at ADC  
1. Exclude  
313 ACS  
Consults all  
State Parks  
Can't show  
plans*

- e. The revocable permit shall cease and be void if the Board issues a lease for the right to collect water from the lands under section 171-58, Hawaii Revised Statutes.
- f. The State reserves the right to withdraw water from this revocable permit to meet the following requirements as the State in its sole discretion may determine.

Constitutionally protected water rights, in stream flow standards, reservations needed to meet the Depart of Hawaiian Home Lands rights under Section 221 of the Hawaiian Homes Commission Act, as well as other statutorily or judicially recognized interests related to the right to withdraw water for the purposes of and in accordance with the provisions of Section 171-58(d), Hawaii Revised Statues.

- g. The permittee shall be responsible for the maintenance of roads used in connection with the operation, maintenance and repair of the irrigation water system.
- h. The State reserves all hunting rights. In the event the State should declare the whole or any portion of the premises as a public shooting grounds, the State reserves the right and privilege to issue written permits to hunters, subject to rules and regulations issued by the Department of Land and Natural Resources, provided, however, that open season shall be coordinated with the activities of the Permittee on the premises.
- i. That the standard Level One Hazardous Materials condition shall be reworded as follows: "At any time during the term or upon termination of this permit, the Chairperson, for good cause, may require the Permittee to conduct at Permittees own expense, a Level One (1) Hazardous Waste Evaluation and a complete abatement and disposal, if necessary, satisfactory to standards required by the Federal Environmental Protection Agency, the Department of Health, and the Department of Land and Natural Resources. Termination of this permit will not be approved by the Board of Land and Natural Resources unless this evaluation and abatement provision has been executed where required."
- j. Subject to any amended in stream flow standard set by the Commission on Water Resource Management that affects State water under this revocable permit.

- 5. Carlitia / Pofu or Weller Durr  
Confused State Parks*
- Q
- k. The Permittee shall comply with all requirements of the State Water Code, Section 174C, Hawaii Revised Statutes, and other laws governing water in Hawaii.
  - l. Commencement date of charges for use of water and use of the water system to be effective September 1, 2001. Determination of rent to be made either by staff appraisal or independent appraisal.
  - m. Applicant shall discuss and resolve with the Water Commission the requirement to install DLNR approved water metering devices at points within the irrigation system, to measure the use of irrigation water by ADC. Reports of such use shall accompany payment of the monthly water use charges by ADC.
  - n. Upon issuance of the revocable permit to ADC, the existing water revocable permit shall be terminated.
4. Authorize the issuance of an immediate right-of-entry for management and site control purposes, subject to the following:
- a. The standard terms and conditions of the most current right of entry document form, as may be amended from time to time.
  - b. Such other terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.

Respectfully Submitted,

*[Signature]*  
SAM LEE  
Kauai District Land Agent

APPROVED FOR SUBMITTAL:

*[Signature]*  
GILBERT S. COLOMA-AGARAN  
Chairperson

APPROVED AS AMENDED. The Board amended the submittal as follows:

AREA:

Land Lease: 14,000 +/- acres, more or less, (excluding the irrigation system) subject to confirmation by the Department of Accounting and General Services, Survey Divisio.

(Cont'd on sheet insert)



ITEM D-11:

APPROVED AS AMENDED (Cont'd):

RENT:

|  |   |
|--|---|
| <u>Water</u><br><u>Revocable</u><br><u>Permit:</u> | <u>Charges for the use of water and use of the water system shall be determined by staff or independent appraisal, subject to review and approval by the Chairperson. The charges payable to DLNR shall begin accruing effective September 1, 2001.</u> |
|--|---|

FINANCIAL REPORTS:

|  |  |
|--|--|
| <u>Water</u><br><u>Revocable</u><br><u>Permit:</u> | <u>ADC shall submit an annual financial report which details the water usage and charges. The monthly financial reports shall be filed with the Chairperson of the Board of Land and Natural Resources within thirty (30) days after the end of each month, and the annual report shall be filed together with the annual payment within thirty (30) days after the end of each calendar year.</u> |
|--|--|

Add Condition 2(g) - Amend to include the two conditions as stated in the Historic Preservation Division comments on Page 10, 6(a)(b) and the following additional requirement: That prior to any modification, alteration, renovation or demolition of the Puu Lua ditch man's cabin, ADC shall first consult with the DLNR Historic Preservation Division.

Add Condition 2(h) - ADC shall be required to consult with DOFAW with regard to any water bird habitat issues.

Add Condition 2(i) - Approximately 313 acres in the area adjacent to the existing water bird sanctuary project shall be excluded from the ADC lease for planned set aside to DOFAW as an addition to the sanctuary that shall come to the Board for separate disposition.

Add Condition 2(j) - ADC shall be required to consult with State Parks Division in the resolution of the last two items under their comments 2(A) for the Kokee Ditch Systems.

Add Condition 3(o) - ADC shall be required to consult with DOFAW with regard to any water bird habitat issues.

Add Condition 3(p) - ADC shall be required to consult with State Parks Division in the resolution of the last two items under their comments 2(A) for the Kokee Ditch Systems.



**HAWAIIAN HOME  
LANDS BOUNDARY**



# Exhibit B

## IV. IRRIGATION SYSTEM

### A. GENERAL

#### 1. Introduction

There are three ditches that divert surface water to the Kekaha Sugar Company lands for irrigation. These are the Kekaha Ditch, Kokee Ditch, and Waimea Ditch. (See Figure 1, Kekaha, Kokee, Waimea Ditch Map) From these main ditches, approximately 2,668 acres of sugar cane in the highland area and approximately 5,090 acres in the coastal (Kekaha-Mana) plain are irrigated from a network of lateral ditches and drip irrigation system. Distribution of the water is by one of the following methods:

- a. Gravity flow directly from the ditches (furrow irrigation).
- b. Pumpage of water to fields from the ditches.
- c. Mixing of imported surface water with pumped ground water for distribution on the coastal plain.
- d. Pumpage from drainage channels back into the ditches for redistribution on the coastal plain.

#### 2. Overview of Irrigation Facilities

##### a. Kekaha Ditch

The Kekaha Ditch diverts water from the Waimea River and supplies water as far west as the Polihale and "N" reservoirs. The total length of the Ditch is approximately 27 miles. The Kekaha Ditch will provide water not only for plantation use but also to other water users like the Kikiola Land Co. and Knudsen Land Co.

The Kekaha Ditch is also replenished with recycled water from a drainage channel at the mauka end of Field 218. Two (2)-8" diameter PVC pipe lines exit the pump station; one leads to Reservoir 117 and the other directly to the Kekaha Ditch.

##### b. Waimea Ditch

The Waimea Ditch is no longer in service due to a landslide that covered portions of the ditch approximately 10-years ago. The Ditch has since been abandoned. Kekaha Sugar Co. provides irrigation water to the users from the Kekaha Ditch.

c. Kokee Ditch

The Kokee Ditch diverts water from Mohili Stream and the headwater of the Waimea River in the Alakai Swamp at an altitude of about 3,400 feet. About one-fourth of the Kokee Ditch supply irrigates the highland (mauka) canefields below Puu Opae reservoir on Niu Ridge, and the balance irrigates the highland (mauka) fields east of Kokee Road. The total length of the Kokee Ditch is approximately 21 miles. This ditch supplies three major reservoirs:

- Puu Lua Reservoir, 262 million gallon
- Puu Opae System, 88 million gallon
- Kitano Reservoir System, 36 million gallon

d. Distribution Systems

- Drip Irrigation System

Approximate 6,598 acres or 85% of cultivated area uses drip irrigation.

- Drip irrigation is used on all the mauka lands and parts of the makai section; predominately to the west of Field 110 and 210. (See Dwg.I-0.1, Irrigation System Schematic)

- Furrow Irrigation System

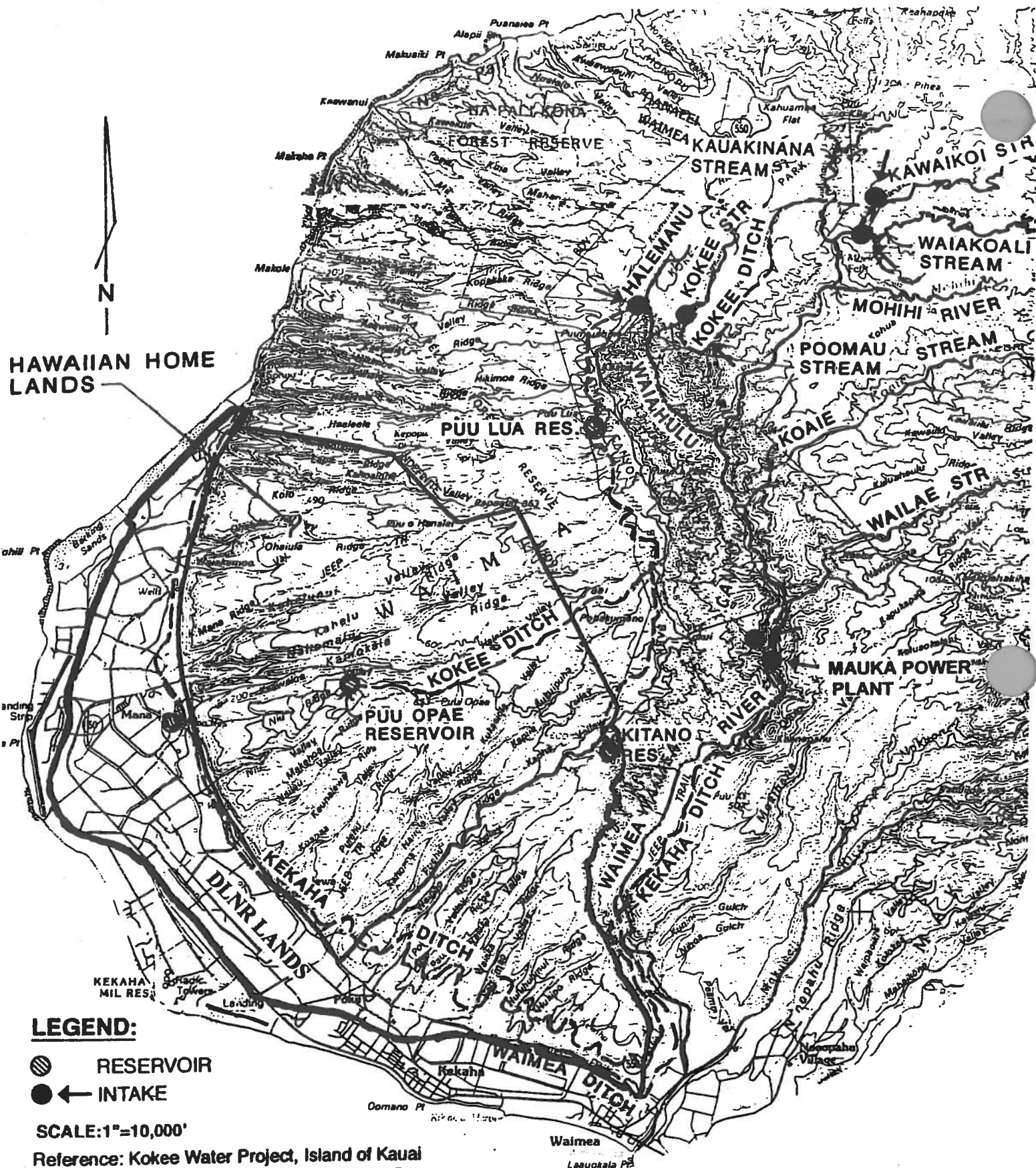
Approximately 1,160 acres or 15% of cultivated area still uses surface irrigation. The system consists mainly of shallow furrows. Furrow irrigation is limited to the makai section and uses both Kekaha Ditch and Mill water. The use of furrow irrigation is restricted to Fields 101 to 107, 201, and 206 to 209. (See Dwg.I-0.1, Irrigation System Schematic)

## B. DESCRIPTION OF THE EXISTING IRRIGATION SYSTEM

### 1. Kekaha Ditch System

a. General Layout of the Irrigation System

The Kekaha Ditch diverts water from the Waimea River at an elevation of approximately 500 feet at the Mauka power plant. The waters from the Waiahulu, and Koaie streams converge at the Waimea dam site located at approximately elevation 850'. The water is diverted by a series of tunnels that lead to the intake point (elevation 700') of an 18" diameter penstock that drops the water to the Mauka power plant. The Waimea River is also routed through the power plant, then discharged into the Kekaha Ditch as shown on Figure 1, Kekaha, Kokee, Waimea Ditch Map.



**FIGURE 1**  
**KEKAHA, KOKEE & WAIMEA DITCH MA**



From the Mauka power plant, the Kekaha Ditch winds its way south generally following the alignment of the Waimea River through a series of concrete lined and earthen channels, and tunnels. Just above Waimea Town, the Kekaha Ditch turns westward and supplies water as far west as the Polihale and "N" reservoirs. (See Drawing I-0.1) The total length of the Ditch is approximately 27 miles. The Kekaha Ditch will provide irrigation water not only for plantation use but also to other water users as identified in Section B.1.e, Other Users of the Kekaha Ditch Water.

b. Existing Condition

The Kekaha personnel rate the existing condition of the Kekaha Ditch as satisfactory. The Ditch is inspected daily for debris, blockage and leaks. Minor repairs are made as needed to insure the continuity of the Ditch flow. Annual repairs are made during the summer when the stream flows are low. The annual operation and maintenance cost can be found in Section C.

c. Makai (Kekaha-Mana Plain) Region

The Kekaha-Mana plain is irrigated from the Kekaha Ditch. Approximately 6,598 acres or 85% of the cultivated lands are irrigated through a drip irrigation system. The drip irrigation system is shown on Drawing I-0.1, Irrigation System Schematic. Generally, the Kekaha Ditch will fill a reservoir designated for a region to be drip irrigated. The water from the reservoir is passed through a sand or fine mesh filter before being pumped into the irrigation mains to the fields. The list of irrigation pumps and motors for each Region is shown in Appendix A. The Standard Operating Procedures for the drip irrigation system is shown in Appendix B.

Approximately 1,160 acres or 15% of cultivated area still uses surface irrigation. The system consists mainly of shallow furrows. Furrow irrigation is limited to the makai section and uses both Kekaha ditch and Mill water. The use of furrow irrigation is restricted to Fields 101 to 107, 201, and 206 to 209. (See Drawing I-0.2, Irrigation System Schematic.) The control of the flow rate into the furrow ditch is accomplished manually with header gates from the Kekaha Ditch. The Standard Operating Procedures for the surface (furrow) irrigation system is shown in Appendix B.

d. Mauka Region

Irrigation water for the mauka region is taken directly from the Kekaha Ditch and pumped to the fields as shown on Drawing I-0.2, Irrigation System Schematic. The mauka fields irrigated from the Kekaha Ditch are as follows: 601, 611, 612, 621, 631, 642, 643, 651, 652, 661, 662, 663, 671, 672, and 673. The water from the Ditch is passed through a sand or fine mesh filter before being pumped into the irrigation mains to the fields.

## e. Other Users of the Kekaha Ditch Water

The Kekaha Ditch system provides irrigation water to the users shown below. The total irrigation water taken is approximately 9 million gallons per day (mgd).

Average Irrigation Usage by Others

| <u>Company</u>            | <u>Usage (mgd)</u> | <u>Comments</u>                        |
|---------------------------|--------------------|--|
| Kikiaola Land Co.         | 2.5                |  |
| Knudsen Land Co.          | 2.0                |  |
| Taro Farmers              | 2.5                | 5" diameter supply line (PVC)          |
| Waimea Dairy              | 0.5                | 2.5" diameter supply line (galvanized) |
| Pioneer Corn Co.          | 1.2                | (Field Nos.: 409, 201, 228 and 128)    |
| <u>Narvortis Corn Co.</u> | <u>0.3</u>         |  |
| Total                     | 9.0                |  |

The Kekaha Sugar Co. personnel estimated these irrigation flow rates. The irrigation water to these users is proportionately reduced when the Ditch flows are below normal levels. There are no flow metering devices installed to monitor the water usage by the users, except for a meter recently installed to monitor the Knudsen Land Co. water usage. Amfac Sugar Kauai could not release copies of the lease agreements with these water users.

## f. Current usage

The average usage varies depending on the season of the cane growing cycle. The average irrigation flows are shown on Table 1, Kekaha Ditch Flows. The average flows for the first 6-months of 1999 was 35-mgd.

## g. Surplus or Shortage of Water

The average in the Kekaha Ditch in the last 50 years from 1946 to 1996 is 1015 million gallons per month (mgm) as shown on Table 2, Average 50-Year Kekaha and Kokee Ditch Flows. The average flow in the past 12 years is approximately 922 mgm, which is a 9% reduction in flow. (See Table 1).

According to the Irrigation System personnel, the optimum Kekaha Ditch flow for sugar production is approximately 50 mgd. The current average flow for the past 12 years is approximately 35 mgd. Therefore, there is a shortage of approximately 15-mgd.

## 2. Kokee Ditch System

## a. General Layout of the Irrigation System.

The Kokee Ditch starts at Camp 8 within the Alakai Swamp and draws water from Waiakoali Stream. The Kokee Ditch diverts water from the Mohili,

Kawaikoi, and Halemanu streams as shown in Figure 1, Kekaha, Kokee, Waimea Ditch Map.

The capacity of the Kokee Ditch between Camp 8 and the first reservoir, Puu Lua Reservoir, is approximately 55 mgd. If the ditch appears to be reaching its capacity, Kekaha personnel will "spill-off" water into Kauhao Stream to protect the ditch from overtopping its banks.

The Ditch capacity between Puu Lua Reservoir and the junction of Puu Opaie Reservoir and Kitano Reservoir is approximately 26 mgd. The Ditch capacity from the junction to Puu Opaie and Kitano is approximately 7 mgd and 19 mgd, respectively. All ditch capacities are taken shown on Drawing I-0.2, Irrigation System Schematic.

b. Existing Condition.

The Kekaha personnel rate the existing condition of the Kokee Ditch as good. The Ditch is checked daily for debris and blockage. Annual maintenance is performed on the Ditch during the dry summer season.

c. Mauka Region

The Kokee Ditch serves exclusively the mauka region. The Ditch system is a combination of 21 miles of open channel flow and tunnels. The following three reservoirs that are filled by the Ditch:

- Puu Lua Reservoir, 262 million gallon capacity.
- Puu Opaie System, 88 million gallon capacity
- Kitano Reservoir System, 36 million gallon capacity.

All the mauka fields are served by a drip irrigation system as shown on Drawing I-0.2, Irrigation System Schematic.

Irrigation system personnel have estimate that the Kitano Reservoir is approximately 50% of its original capacity due to siltation. It was noted that the reservoir was last dredged in the late 1970's. Siltation of the other reservoirs has occurred, but the exact decrease in capacity is unknown at this time. It does not appear that the siltation of the reservoirs has hindered

d. Other Users of the Kokee Ditch Water

The Kokee Ditch system provides approximately 0.5 mgd irrigation water to the Hawaiian Home Land Pastoral Lots. The irrigation water is supplied through a 2" PVC/galvanized steel pipeline.

e. Current Usage

The average usage varies depending on the season of the cane growing cycle. The average irrigation flows are shown on Table 3, Kokee Ditch Flows. The average flows for the first 6-months of 1999 was 11-mgd.

f. Surplus or Shortage of water

The average in the Kokee Ditch in the last 50 years from 1946 to 1996 is 438 million gallons per month (mgm) as shown in Table 2. The average flow in the past 12 years is approximately 392 mgm, which is a 10% reduction in flow. (See Table 3).

According to the Irrigation System personnel, the optimum Kokee Ditch flow for sugar production is approximately 15 mgd. The current average flow for the past 12 years is approximately 13 mgd. Therefore, there has been an average shortage of approximately 2-mgd for the past 12 years.

### C. OPERATION AND MAINTENANCE COSTS FOR THE KEKAHA & KOKEE DITCHES

The estimated annual operation and maintenance costs for the Kekaha and Kokee Ditches are as follows:

|   |           |                  |
|---|-----------|------------------|
| Daily maintenance of ditches:                   |           | \$387,000        |
| Labor (120 manhours/wk x 52 wk/yr. x \$60/hour) | \$374,000 |                  |
| Equipment costs (160 hr/wk x \$20/hour)         | 3,000     |                  |
| truck   |           |                  |
| Material costs (Cement, aggregate, sand, rebar) | 10,000    |                  |
| Annual maintenance of ditches:                  |           | \$250,000        |
| Labor (20-men x 8-hours x 20 days x \$60/hour)  | \$192,000 |                  |
| Equipment costs (160 hr/wk x \$50/hour)         | 8,000     |                  |
| Backhoe, dump truck                             |           |                  |
| Material costs (Cement, aggregate, sand, rebar) | 50,000    |                  |
| Allowance for emergency repairs                 |           | \$61,000         |
| Labor (10-men x 8-hours x 6 days x \$60/hour)   | 29,000    |                  |
| Equipment costs (50 hr/wk x \$50/hour)          | 3,000     |                  |
| Backhoe, dump truck                             |           |                  |
| Helicopter rental (24-hours x \$1,000)          | 24,000    |                  |
| Material costs (Cement, aggregate, sand, rebar) | 5,000     |                  |
| Contingency (10%)                               |           | 72,000           |
| Total   |           | <u>\$770,000</u> |